Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment to the Commission's Rules to	)	ET Docket No. 96-102
Provide for Unlicensed NII/SUPERNet	)	RM-8648
Operations in the 5 GHz Frequency Range	)	RM-8653

COMMENTS OF THE CONNECTIVITY FOR LEARNING COALITION

The **CONNECTIVITY FOR LEARNING COALITION**[1] submits the following Comments in the above referenced proceeding.

I. Introduction

The **CONNECTIVITY FOR LEARNING COALITION** (the Coalition) applauds the Federal Communications Commission (FCC) for undertaking this rulemaking to provide for unlicensed, high-speed digital communications to facilitate affordable access to the National Information Infrastructure (NII) for schools and libraries and other public interest applications.

The Coalition believes that the Commission's NII/SUPERNet proposal can, if properly structured, contribute significantly to the goal of providing affordable access to the NII for students, teachers, parents, librarians, administrators and others.

The Coalition is concerned, however, that the Commission's

[1] The Connectivity for Learning Coalition is an ad-hoc coalition of organizations concerned about school and library connections to the NII.

proposed rule takes far too narrow a view of education and other public interest applications and, as a result, will not achieve its intended result.

II. Connecting the Education and Library Communities

The Commission's proposal allows for new wireless local area networks (LANs) that will "facilitate wireless access to the NII."[2] However, by only "facilitating" access to the NII, the Commission's proposal takes a very narrow view of the needs of the education and library communities.

LANs can provide communications within schools and libraries; from classroom to classroom, for example. However, the education and library communities extend beyond the outside walls of a school or library building. They extend into the homes and workplaces of parents, teachers, students, librarians, administrators and others.

While LANs are an important part of the network, they are only a small part. For NII/SUPERNet devices to truly serve the education and library communities they must provide for communications over a wide area or community network.

Teachers developing lesson plans at home need access to online resources. Parents should be able to access school and library bulletin boards, homework hotlines, and information about their children's performance in school. Students working at home need access to homework hotlines and information resources at the school and community libraries. School administrators should be able to

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[2] NPRM at par. 1.

use NII/SUPERNet devices to communicate with their colleagues and school principals.

III. The Commission's Proposed Rule Does Not Meet The Needs of the Education and Library Communities

The Commission's proposed rule falls far short of meeting the needs of the education and library communities. NII/SUPERNet devices, as proposed by the Commission, would have a very short range. The very limited power level proposed by the Commission -- .1W -- severely limits the ability of NII/SUPERNet devices to communicate through walls and between floors of school or library buildings.

Commenters are concerned that given these conditions, NII/SUPERNet devices might only be able to transmit between a fixed point (e.g., a modem plugged into a telephone line) and a mobile point (e.g., a notebook computer) within the same classroom. Such an arrangement would limit the functional utility of NII/SUPERNet devices. Such devices could only serve, in effect, as routers, transmitting signals to several points in one room. Communications between rooms and outside the school or library building would require a hardwire connection.

Such an outcome defeats the fundamental purpose of the NII/SUPERNet proposal: to provide low-cost, wireless connections to the NII for schools, libraries, health care facilities, businesses and other users. The cost of wiring schools, for example, is, in many instances, prohibitive. It is one of the

largest obstacles to achieving the goal of connecting classrooms to the NII by the year 2000.[3]

Commenters believe that the NII/SUPERNet proposal should provide for connections to the NII without the need to wire school and library buildings To achieve this goal, the Commission should increase the power level of NII/SUPERNet devices.

IV. NII/SUPERNet Rules Should Accommodate Part 15 Use of 5 GHz Range

The Coalition has participated in the Commission's LMS proceedings[4] and members are aware of the tremendous potential of unlicensed Part 15 devices, to meet the needs of the education and library communities.[5] Part 15 devices are currently permitted in the 902 - 928 MHz, 2.4 GHz and 5 GHz ranges of the spectrum. They provide the wide area or community networks that are needed to meet

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[3] In his 1996 State of the Union address President Clinton called on all Americans to work toward connecting every classroom and library to the NII as we enter the 21st Century.

[4] See, for example, Petition for Reconsideration of the Connectivity for Learning Coalition, In the Matter of Amendment of Part 90 of the Commission's rules to Adopt Regulation for Automatic Vehicle Monitoring Systems, PR Docket No. 93-61.

[5] As part of NetDay '96, one Part 15 company, Metricom, Inc., provided its "internet cart" to Duveneck Elementary School in the San Francisco Bay area. By using a school computer, a wireless modem and an audio-visual cart, Metricom was able to demonstrate a modest variation of the laboratory and classroom models of connectivity identified in, "Kickstart Initiative: Connecting America's Communities To The Information Superhighway," prepared by the United States Advisory Council of the National Information Infrastructure. The internet cart provides, in effect, a mobile laboratory that can be moved from classroom to classroom.

the needs highlighted above.

Part 15 devices are currently being used by school systems throughout the San Francisco Bay Area[6] and on many college campuses.[7] We understand that Part 15 wireless modems will soon be available to schools and libraries in the Washington, D.C. metropolitan area.[8]

The Coalition understands that potential conflicts can and do arise in shared spectrum. In the 900 - 928 MHz range, the Commission has established a hierarchy of users from among both licensed and unlicensed devices. Part 15 wireless devices operate at the bottom of the priority list. As a result, they are the most vulnerable users in that part of the spectrum. Part 15 devices must accept interference from all other users and cannot, with limited exceptions, cause interference to other users.

In the current proceeding, the Coalition urges the Commission to adopt a clear statement that unlicensed devices operating in the 5 GHz range must meet minimal technical requirements that effectively manage interference without establishing a hierarchy of

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[6] Part 15 devices are being used in the Alum Rock School District, the Santa Clara County Office of Education, and several alternative and private schools.

[7] Fully installed Part 15 wireless data networks are operating on the following campuses: Austin College, California Polytechnic University, Oregon State University, San Francisco State University, University of California at Berkeley, University of California at Santa Cruz, University of Miami, and University of Oregon.

[8] Use of the internet cart is currently being demonstrated in Malcolm X Elementary School and Davis Elementary School in the District of Columbia.

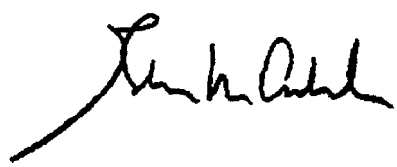
uses and without sacrificing the power levels needed to meet the needs of the library and education communities. The Coalition also urges the Commission to promote and protect the operations of those Part 15 devices that provide the appropriate range and power levels required by the education and library communities.

V. Conclusion

The Coalition supports the Commission's goal of making available spectrum in the 5 GHz range for use by NII/SUPERNet devices. However, we urge the Commission to adopt rules that allow these devices to transmit over wide area or community networks.

Respectfully submitted,

CONNECTIVITY FOR LEARNING COALITION



Gordon M. Ambach
Executive Director
Council of Chief State School Officers
One Massachusetts Ave., NW
Suite 700
Washington, D.C. 20001-1431

Keith Krueger
Consortium for School Networking

J. Maurice Trevillian
Chief Officers of State Library Agencies

Tim Dyer
National Association of Secondary School Principals

Dr. Drew Allbritten
American Association for Adult and
Continuing Education

Dena G. Stoner
Council for Educational Development
and Research

Chris Dede
George Mason University[9]

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[9] For affiliation purposes only.